11:30

706-5 A Prospective Evaluation of the Outpatient Initiation of Antiarrhythmic Therapy for Supraventricular Tachyarrhythmias

Roger J. Laham, Mark E. Josephson. *Harvard Medical School, Beth Israel Hospital, Boston, MA*

This study was designed to investigate the feasibilityand safety of the outpatient initiation of antiarrhythmic therapy in Pts with supraventricular tachyarrhythmias (SVT). Pts with SVT that required treatment with antiarrhytmic drugs were eligible for enrollment. Pts with active coronary artery disease, previous MI, CHF, LVEF < 40%, ventricular tachyarrhythmias, prolonged QT, and unexplained syncope were excluded from the study. The starting dose was administered and Pts were observed for 2 hours. Using transtelephonic monitoring, ECG strips were transmitted 2 hours after each dose and with any symptoms. Pts were followed for 1 month. An identical cohort, hospitalized for the initiation of identical antiarrhythmic drugs, was identified and constituted the comparison population. The study cohort consisted of 28 Pts (13 men and 15 women). The mean age was 58 ± 19 years (range 20–86 years). 2 Pts (7%) had mild systolic left ventricular dysfunction and 2 Pts (7%) had established coronary artery disease. 5 Pts (18%) had LVH. The index arrhythmia was atrial fibrillation in 21 patients (75%). The antiarrhythmic drugs used were amiodarone in 11 Pts (39%), flecainide in 9 Pts (32%), sotalol in 4 Pts (14%), disopyramide in 3 Pts (11%), and procainamide in 1 Pt (4%). On follow-up, the average minimal heart rate was 58 ± 9 Bpm. Only 2 patients had QT interval prolongation which did not lead to discontinuation of therapy. Complete suppression of index arrhythmia was observed in 12 patients (43%). Adverse events were seen in 2 (7%) Pts (5-beat ventricular tachycardia-chronotropic incompetence) and resolved with discontinuation of therapy. The comparison cohort consisted of 28 patients (15 men and 13 women, mean age 62 ± 18 years, atrial fibrillation in 75% of Pts). The mean hospital stay was 3.2 ± 1.1 days. The mean hospital charges of the hospitalized patients were significantly higher than the outpatient population charges ($6,966 ± 2,190 vs $1,173 ± 1,912, p < 0.0001). *Conclusion:* This study demonstrates that the outpatient initiation of antiarrhythmic therapy for SVT may provide a safe and cheaper alternative to the hospitalization of these patients for that purpose.

11:45

706-6 Long-Term Follow-Up in Patients With Medically Refractory Atrial Fibrillation Treated With Propafenone and Sotalol

Leonard I. Ganz, Julie B. Shea, Sharon C. Reimold, Catherine O. Cantillion, Peter L. Friedman, Elliott M. Antman. *Brigham and Women's Hospital, Boston, MA*

Between March 1985 and August 1991, 209 patients who had failed to respond to an average of two type IA antiarrhythmic drugs for atrial fibrillation or flutter (AF) were enrolled in investigational protocols utilizing propafenone (PPFN) and sotalol (SOT). Their mean age was 62 years and mean ejection fraction was 58%. AF was paroxysmal in 49% and chronic in 51%. Structural heart disease was present in 85%; 15% were lone fibrillators. A survey regarding vital status, current medications, and rhythm status was conducted after a mean follow-up of 5.3 years (range, 2.8–9.0 years). To date, vital status is known in 144 patients (69%). Total mortality during follow-up is 11.5%. Cardiac rhythm and medication information is available on 113 patients. Recurrent symptomatic AF (either chronic or paroxysmal) is now present in 80 patients (71%).

Current Therapy	Recurrent AF (n = 80)	Sinus Rhythm (n = 33)
PPFN or SOT	16	24
Amiodarone	5	7
Warfarin	73	13

Permanent pacemakers were implanted in 7 patients prior to enrollment and in 23 since enrollment. *Thus*, in the long-term follow-up of this cohort of medically refractory AF patients: 1. Mortality is about 2.2% per year. 2. AF recurs frequently despite treatment with PPFN and SOT. 3. Antiarrhythmic therapy does not eliminate the use of long-term warfarin therapy. 4. Permanent pacemakers are frequently implanted in these patients.

707 Revascularization: Predicting Benefit and Results

Monday, March 25, 1996, 10:30 a.m.–Noon
Orange County Convention Center, Room 208

10:30

707-1 Clinical Significance of a Non-High-Risk Ischemic SPECT Scan Within 6 Months After PTCA

Timothy M. Bateman, James H. O'Keefe Jr., James P. McGraw, Carrie S. Barnhart, Robert W. Ligon. *Cardiovascular Consultants, P.C., Mid America Heart Institute, Kansas City, MO*

Nonischemic SPECT scans post PTCA predict a low likelihood for subsequent cardiac events while extensively ischemic scans usually prompt further revascularization. Currently, it is unknown whether pts with non-extensive reversible perfusion defects (NERPDs [defined as ≤ 1 of LAD or multivessel distribution ischemia or abn. Tl-201 lung uptake]) within the first 6 mos post-PTCA have a benign outcome as do pts with NERPDs and non-intervened CAD. To evaluate this, we analyzed our experience with all such SPECT findings from 1989 to 1994. Of 697 pts with NERPDs ≤ 6 mos post-PTCA (1% lost to follow-up): 81% were male; 58% had prior MI; 20% had prior CABG; 52% had angina and 90% had single-vessel distribution ischemia. There were 51 hard events (14 cardiac deaths; 37 nonfatal MIs) during a mean f/u of 30 mos; freedom from events was 96% at one year, 93% at two years, and 92% at three years. The only significant correlate of a hard event was repeat PTCA (event rate 10.6% vs 5.3% for those treated medically). Pts treated with repeat PTCA (n = 291) were compared to those treated medically (n = 400): the only significant difference was that 58% of repeat PTCA pts had angina vs 48% of medically treated pts (p = 0.009).

Conclusions: 1) Pts with NERPDs ≤ 6 mos post-PTCA have a significant hard event rate over the next few years; 2) Pts who have events are not easily predicted by usual clinical indices; and 3) Responding to a non-extensive reversible perfusion defect on SPECT by further PTCA doubles the hard event rate.

10:45

707-2 I-123-Iodophenylpentadecanoic Acid (IPPA) Overestimates Myocardial Salvage Early After Reperfusion

David K. Glover, Mirta Ruiz, Hiwot Desta, Dennis A. Calnon, William H. Smith, Denny D. Watson, George A. Beller. *University of Virginia, Charlottesville, VA*

We have previously shown IPPA to be superior to T1-201 for assessing myocardial viability in a canine model of sustained low flow and systolic dysfunction with minimal subendocardial necrosis. We now sought to determine the potential use of IPPA for assessing myocardial viability early after reperfusion (Rp). Accordingly, IPPA (5 mCi) was injected in 5 dogs 60 min after Rp following 180 min of total LAD occlusion (Occ) and images were acquired over 2 hours. LAD Thickening fell from 21 to −3% (p < 0.01) during Occ and remained dyskinetic after Rp. Despite an infarct size averaging 50.6% of the risk area (13.9% LV) there was substantial IPPA uptake seen on initial images. LAD/LCX count ratios from background subtracted images were 0.64 ± 0.03 and 0.76 ± 0.03 at 5 and 120 min respectively (p = NS). In addition, the transmural LAD/LCX IPPA activity ratio from post mortem gamma well counting (0.82) was not significantly different from the Rp LAD/LCX flow ratio when IPPA was injected (1.0). Even in the most severely ischemic segments (Occ flow < 10% normal; n = 45), there was substantial IPPA activity of 63.6% of normal suggesting sequestration of non-metabolized tracer. In summary, in this canine model of coronary Occ and Rp, early administration of IPPA resulted in an overestimation of the degree of myocardial salvage due to retention of the tracer in infarcted regions. The mechanism for this prolonged retention remains to be determined.

11:00

707-3 Relation of Preoperative Ischemia Severity to Benefits of Bypass Grafting in 2-Vessel Coronary Artery Disease

Phyllis G. Supino, Clare Hochreiter, Deborah A. Lauterstein, Ben A. Deyi, Jeffrey S. Borer. *Cornell Medical Center, New York, NY*

We have previously shown that ischemia severity, determined by change (Δ) in LVEF from rest to exercise(ex) during radionuclide cineangiography (RNCA), is an independent predictor of cardiac events (CE) among medically treated (MED) pts with 2-vessel(v) coronary artery disease (CAD). However, the benefits of coronary artery bypass grafting(CABG) for this population(pop)